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DIRECTLY SPEAKING

By William H. Spaulding
Director, GSW/WD

There are times when the media can hurt the UFO movement more than it can help the cause. A couple of incidents depicting this very situation were graphically displayed in the April and May issues of Omni magazine. The April issue carried the worst collage of UFO photographs I have ever seen in a "class" publication. It is beyond my comprehension that a magazine with both the money and the reputation of Omni would lower their standards by publishing such an assemblage of fraudulent pictures.

Regardless of who is to blame, the writer, the editor, or a combination of all, the bottom line is that the forces against UFO research surface with another victory. The scenario is simple; the photos appearing in Omni are typical of all UFO pictures. Their logic is overwhelming: since all of the published photos are obvious photographic anomalies - lenticular clouds and man-made models of the crude variety - they claim this is what the UFO researchers are wasting their time on. Therefore, it can be stated that all UFO photos are hoaxes/misinterpretations, and following the anti-UFOlogists' logic to a conclusion, a bonafide UFO photograph does not exist. This may sound a little far-fetched, but it is not. I hear this all the time. People tend to believe whatever they read and hear, especially when it is presented in a slick format such as that of Omni.

The editors of Omni have performed a great disservice to the UFO community and have subjectively reported the true value of UFO pictorial data. The sad part is, rebuttles in the form of letters to the editor are not going to change a thing. The damage is already done. What can be done? When the writer was contacted by editors of Omni for an article on GSW and the methodology of computer enhancement as applied to UFO photographs, I flatly refused. Why should our organization undergo another dose of subjective journalism.

The display of the highly subjective photographs was only the beginning of Omni's "contribution" to the study of UFOs. Following in the May issue, the editors of Omni really blundered in an article on the GSW/CIA lawsuit. Aside from the fact that they got all of the information confused in the article, our organization was not even mentioned as the group behind the lawsuit. Not once was GSW mentioned as the organization who initiated the legal action. The article, read by thousands of persons, stated that CAUS (headed by Todd Zechel) was the only organization involved in the suit. Our Board of Directors, along with Todd Zechel, wrote letters to the Omni magazine stating their displeasure. Excerpts from Mr. Zechel's letter follow:

"As a long-time fan of Penthouse's investigative articles, many of which exposed and explored issues otherwise ignored by the main body of American journalism I was excited and rather optimistic when I first heard about Omni. I was particularly encouraged at the prospect of a legitimate science/science fiction magazine giving some space to the UFO issue, having been completely disappointed and turned off by the newstand magazines solely devoted to UFOs.

Unfortunately, Omni chose to call on James Oberg to be its UFO columnist. Oberg, then an Air Force officer and one of the three leading U.S. UFO 'skeptics' (along with Philip Klass and Robert Sheaffer), might not have been such a bad choice had he not decided to use the column for anti-UFO propaganda purposes and to promote his mentor, Philip Klass. While Oberg has often voiced sensible, seemingly objective opinions on various UFO issues during private conversations with me and other UFOlogists, apparently the temptation to use the Omni column to advance the 'skeptics' cause was too great to resist.

It seems I wasn't the only one who noticed severe flaws in Oberg's biased approach, since he was shuffled off to limbo after a few columns. Unbelievably, things have only gotten worse since Oberg's ouster, only now the scales have tipped overwhelmingly in the opposite direction. What we have seen lately has been a series of hacks and believers misrepresenting the truth far beyond anything Oberg ever attempted, thereby making the ex-Captain look like a god-send by comparison.

The most recent issue was a particular irritation to me, since it reported (or purported to report) on the work being done by myself and the organization I am director of, CAUS. Art Gatti, best known for a laughable book he wrote about UFOs and sexual encounters (called, I think, 'Close Encounters of the Fourth Kind,' or something like that), was given the assignment to write about CAUS and the FOIA lawsuit against the CIA. While I have no personal animosity toward Gatti, it seems to me that assigning Gatti to write about government involvement with UFOs -- and our efforts to investigate and expose the same -- is sort of like sending a cartoonist to write about the Louvre museum.

Among other boners, Gatti invents an FOIA lawsuit against the Air Force that's never been filed, explaining that I obtained the documents related to the mystifying overflights of SAC B-52 bases and missile sites during the fall of 1975 by way of this fictional suit. In actuality, all of the documents (some 400 pages) were obtained through FOIA requests and follow-up appeals! A suit against the Air Force is in the planning stages, and within it I/we intend to demonstrate there is strong evidence that the Air Force did in fact recover what has been described as a 'crashed flying saucer'.

Even worse, though, is the fact Gatti misrepresents the ground-breaking FOIA suit against the CIA that has so far caused over 2,000 pages of documents to be released. Gatti attributes the suit to CAUS, which was not even in existence when the suit was filed, and ignores completely the role of Ground Saucer Watch in the suit.

The facts are that I initiated the suit in behalf of GSW, acting as its Director of Research, and Bill Spaulding, GSW's Director, has provided most of the funding. All of the court records refer to the suit as GSW vs. the CIA, and CAUS is not involved as a litigant.

All in all, Gatti misrepresents both the details and general intent of our work, making it seem like we're just another band of UFO believers

attempting to instill belief in UFOs. Had Gatti chosen to talk to me or any of the other CAUS staffers, he might have been able to write a knowledgeable article rather than utilizing his fertile imagination to invent fictional suits and views of the CIA's involvement with UFOs."

It is the desire of all the members of GSW & CAUS that future articles on UFOs, like the two stories in Omni, be replaced with a more objective approach. This type of writing cannot help our C.A.U.S.

THE NEW ZEALAND AND AUSTRALIA SIGHTINGS

By Bill Baum

During the month of May, Mr. Paul Norman, Vice President of the Victoria UFO Research Society, was in Phoenix with several newspaper articles and taped interviews concerning the disappearance of Frederick Valentich, the private airplane pilot who disappeared October 21, 1978 over a body of water near Melbourne, Australia called Bass Strait. He also had several articles concerning the New Zealand sightings between December 22 and 31, 1978. I interviewed Mr. Norman for several hours on two occasions and recorded some of his tapes of T.V. programs and interviews with other people who had sightings during these same time periods.

It seems that about 40 to 50 other sightings were reported during the afternoon and evening of October 21, 1978 in and around the Melbourne area. Most of the reports were observations made by two or three people, but one was reported in the early afternoon of that day by a group of twelve people playing tennis. They observed the object for several minutes.

Mr. Norman believes that the numerous other reports - many of which have yet to be investigated - create an aura of truth around the disappearance of Mr. Valentich. He feels that the young pilot actually encountered an unknown aircraft and disappeared as a result of that encounter. Most of the Australian sightings were generally in the Melbourne area during the daylight hours before Mr. Valentich disappeared, but others occurred as many as three days later (he first radioed his sighting shortly after 7:00 p.m.).

After listening to actual T.V. programs that Mr. Norman recorded, it became apparent to me that the news coverage received in the United States was only a portion of what was reported in both Australia and New Zealand. In the case of the Australian disappearance, the bulk of extra material is in the many supporting reports taken by Mr. Norman's society, but the New Zealand sightings were much more detailed - and the actual video tape of what the T.V. crew saw was much longer and evidently showed more detail - than what was shown here in the States. The actual film as it was shown in New Zealand lasted approximately two minutes, ten seconds...we saw about 15 or 20 seconds of film here.

The T.V. crew and the aircraft crew was interviewed by both television and newspaper reporters several times and a documentary-type T.V. program was put together where portions of the UFO footage were shown

several times and the people involved gave a detailed account of what happened.

The sighting during which the T.V. crew took their pictures took place on December 30-31, 1978. It started at about 11:20 p.m. and lasted off and on for most of their flight*; however, on December 22 at approximately 1:20 a.m. an Argosy freighter plane, following the same route the T.V. crew later took, reported seeing five UFOs which were confirmed on ground radar. These objects followed the plane until about 3:00 a.m. At about 3:30 a.m., a second Argosy took off on the same course as the first, and was asked to investigate a radar target. At first they saw nothing, but when radar reported the object at a new position, the plane's crew reported seeing a "bright white light tinged with red" that also showed on their weather radar. The first Argosy landed and refueled, then headed back to its point of origin and again saw what appeared to be the same five objects they had seen before.

Confirmation of the sightings was made by the Wellington Airport radar. The flight crews were all experienced and well-thought of. In the case of the plane carrying the T.V. crew, the pilot said that he could see the planet Venus at the time - and at one stage, "Venus was behind the object and we could see both at the same time."

Mr. Norman's investigators have been extremely busy gathering data on these sightings and have compiled an impressive amount of supportive data that goes a long way in establishing them as bonafide unknowns. It is good to know that other groups such as this are doing their part in trying to solve the UFO question and are willing to share their findings with our organization.

*For details, refer to MUFON Journal May/June 1979 & Dr. Bruce Maccabee's photo analysis.

WHAT REALLY HAPPENED IN NEW ZEALAND?

A Report on Radar/Visual/Photographic UFO Sightings Off The Coast of South Island - December 31, 1978

By Dr. Bruce Maccabee
GSW Consultant

It would take a book to describe in detail the series of events of the early morning of Dec. 31, 1978. Even a brief summary is quite long when all the events are treated individually rather than being lumped together under some general statements. In this paper I have taken a sort of "middle road" by presenting a summary and then a series of more or less disjoint events which, when taken together with the summary, provide a rather detailed history of the technical aspects of these sightings. I have not presented non-technical aspects (e.g., how people felt at the time) except in a few instances.

The New Zealand radar-visual-photographic sightings resulted from a series of chance occurrences that caused a news reporter and film crew to be on board a freighter aircraft during an early morning newspaper transport flight. The news team was aboard to obtain background film for use in a couple of short news stories about a previous UFO sighting

involving pilots on similar aircraft that were flying off the east coast of the South Island of New Zealand during the morning of Dec. 21, 1978. Because the Dec. 21 sightings involved apparently simultaneous sightings of objects by Wellington radar (Air Traffic Control), airplane radar, and the aircraft pilots (and at least one ground sighting) these radar-visual sightings made front page headlines in New Zealand and Australia. Channel O of Melbourne decided to do a news feature on the sightings, and so the Channel asked one of its reporters, Quentin Fogarty, who was on vacation in New Zealand, to interview the air traffic controllers and the pilots involved in the Dec. 21st sightings. Fogarty decided to also try to get aboard a plane to get some film footage of lights at night. He was fortunate to be able to get on an Argosy aircraft with his film crew on an early morning flight that was in many ways identical to the previous flight. He had virtually no hope of seeing anything unusual, nor did anyone else on the plane. He planned to fly with his crew from Blenheim to Wellington and then to Christchurch and then to get off, at about 1:00 a.m., Dec. 31. However, as the reader will see, a series of unusual events caused Fogarty to change his plans, and as a result he became involved in one of the very few, or perhaps the only, radar-visual-photographic UFO sightings ever to take place. Certainly it was the only one in which on-the-spot tape recordings were made.

This paper is divided into several parts which, very generally, cover the background history of my own involvement, the history of the sightings (summary and event listing), and the technical analysis to the date of this writing. The radar aspects of the sightings are more easily treated than the photographic aspects because it is difficult to quantify the radar sightings and therefore less technical work can be done. However, the amount of photographic data is considerable (even "immense"), since there are several thousand frames of 16 mm color film that contain useable images (although many of these are streaks). Only the simplest sorts of analyses have been attempted so far. Eventually the film will be subjected to sophisticated analysis with the intent of determining the characteristics of the objects themselves from the characteristics of the images. This one case is like sending a man to the moon: he brings back several pounds of rocks and those rocks keep scientists working for years to find out what the rocks mean to our understanding of the moon, the solar system, and cosmology in general.

(Editor's note: Details of investigation & sighting data are available in the MUFON Journal, issues May & June, 1979. Details of the photographic analysis will be covered in the GSW Bulletin)

TECHNICAL DETAILS FOR THE FLIGHT SOUTH

TIME: 11:46 p.m., December 30, 1978, to 1:01 a.m. December 31, 1978.

WEATHER: (as determined by the flight crew) excellent flying conditions with no noticeable departure from a standard temperature lapse rate from ground level to 14,000 feet; low clouds over Wellington; visibility about 60 km over the sea; wind speed at cruising altitude estimated to be no more than 10-15 knots from the west; atmospheric conditions sufficiently steady to allow operation with automatic pilot and automatic height control (as pressure sensitive device); no noticeable inversion effects on Wellington radar. The temperature and humidity variations with altitude are shown in Fig. 3.

NUMBER OF WITNESSES ON PLANE: 5 (pilot, co-pilot, reporter, camera-man, sound recordist)

AIR SPEED OF AIRCRAFT WHEN CLIMBING: 155-180 knots.

CRUISING ALTITUDE: 14,000 ft.

AIR SPEED AT CRUISING ALTITUDE: 215 knots.

TYPE OF AIRCRAFT: 4-engine turbo prop freighter -- 2-man crew (Argosy, SAE).

CAMERA EQUIPMENT USED: Bolex HL6, EBM electric, 16mm. reflex movie camera operated at 24 frames/sec. and a Kern, vario-switer 16-100 mm zoom lens at f/1.9. The camera has a rotating sector shutter just in front of the film plane. The sector is open for 160° out of 360°.

FILM: Fujicolor type 8425, 16mm, ASA 400 color reversal film, standard development.

RADAR EQUIPMENT USED:

Wellington Tower Radar: Marconi 264, 50 cm (587 MHz), 500 kilowatts, with some adaptations for use at Wellington.

MTI Capability: targets with radial velocities in excess of 15 knots are detected in the MTI mode with phase shift and digital scan summing electronics. Observations on known targets with and without the MTI processing indicate that the MTI processing improves the sensitivity of the radar. (Strong targets in the MTI mode may be weak or even non-existent in the non-MTI mode.)

Pulse Repetition Rate: automatically varied between six frequencies averaging 500/sec.

Pulse Duration: 2.7 microseconds

Rotation Rate: 12 sec./revolution

Azimuthal Beamwidth: $2.1^{\circ} \pm 0.2^{\circ}$

Antenna Gain: 30 db over a dipole

Polarization: horizontal

Absolute Distance Accuracy: 1% of full scale

Relative Distance Accuracy: (set by blip size on the display): about 1 mile on the maximum range

Maximum Range: 150 nautical miles at 10,000 ft.

Antenna Height: about 1,700 ft. above sea level

Upward Tilt of the Center of the Transmitted Lobe: about 4° (there is no height resolution for this radar; the radar detects surface targets for a distance of 30 to 50 miles under normal conditions)

Display: 12" diameter PPI with 10 miles range rings on the 150 mile range.

NUMBER OF WITNESSES: two (controller and technician)

CHRISTCHURCH TOWER RADAR: Marconi 264, 50 cm., 50 kw.

MTI CAPABILITY: not as sophisticated as Wellington, but similar

MAXIMUM RANGE: 100 nautical miles at 10,000 ft.

ANTENNA HEIGHT: about 120 ft. above sea level

UPWARD TILT OF THE TRANSMITTED LOBE: there is a cone of invisibility extending outward from the antenna which rises at a rate of 100 ft/mile, beneath which targets cannot be seen under ordinary atmospheric conditions.

NUMBER OF WITNESSES: 1

TECHNICAL DETAILS FOR THE FLIGHT NORTH:

TIME: 2:16 am to 3:15 am, December 31, 1978

WEATHER: (as determined by the flight crew): excellent flying conditions with no noticeable departure from standard lapse rate conditions; wind speed at cruising altitude estimated at 10-15 knots from the southwest; possibly a cloud bank more than 40 miles east of the South Island; low cloud cover 1200 to about 3000 ft. above Christchurch; scattered low cloud over ocean; CAVU conditions above clouds; for Blenheim at about 2:45 am the wind was out of the northwest at 10-15 knots, the visibility was 60 km, the cloud cover was 1/8 at 4,000 ft., and the temperature was 15° C; after achieving the cruising altitude the crew operated the plane on automatic height control. (see also Figure 3.).

NUMBER OF WITNESSES IN THE PLANE: 5 (pilot, co-pilot, cameraman, Australia reporter, Christchurch reporter)

CRUISING ALTITUDE: 13,000 ft.

(aircraft details are the same as for the flight south)

CAMERA EQUIPMENT USED: Same, but now run at 10 frames/sec.; also used Sun Macro-Zoom, 80-240 mm lens used at f/4. (This lens was later found to be out of adjustment. At full zoom objects at "infinity" came into focus when the focus ring read 15 ft., and distant objects were out of focus when the ring read "infinity." This condition of the lens may explain the section of film footage which shows a large dim image which then contracts to a bright, much smaller image, and then expands again to a dim large image, accompanied by an apparent symmetry inversion of the defocused image.)

FILM: same type as for the flight south.

RADAR EQUIPMENT USED:

Wellington Tower Radar: same as for the trip south

Number of Observers: 1

Christchurch Radar: same as for the trip south

Number of Observers: 1

Airplane Weather Radar: M.E.L. Equipment Co. EL90 Series, 3 cm (9375 MHz), 15 kw.

MIT Capability: none

Operating Mode: operated in the "map mode" which produces a fan-shaped beam extending from 3° to about 15° below the centerline of the aircraft

Azimuthal Sweep Range: \pm about 50° from straight ahead.
Sweep Rate: About 3 sec. per cycle
Pulse Repetition Rate: 400/sec
Pulse Duration: 2.2 microseconds
Beamwidth: 3.5°
Range: 150, 50, 20 miles (used on 20 mile range)
Display: sector display with 5 miles range rings and 15° azimuth markings.

NATURAL AND ARTIFICIAL SOURCES OF LIGHT

Astronomical

Jupiter, visible in the northeast, magnitude about -2.0

Saturn, visible in the northeast, magnitude about 0.0

Venus, visible in the east after about 3 am at the altitude of the plane, magnitude about -4.3, except on the horizon where atmospheric extinction reduces its brightness by a factor of 100 or more.

Stars and other sources, visible in the clear sky, but all dimmer than Jupiter.

No comets, meteors, or aurora were reported.

(Note: The co-pilot pointed out Venus to the plane passengers near the end of the flight north.)

Artificial

City Lights

Flashing and steady coastal and airport beacons, with flashing or rotation periods ranging from about 1.5 sec (flashing only red) to 30 sec (flashing only white).

Japanese fishing fleet lights, used for squid fishing, were at distances estimated to be over 200 km east of the South Island and east to southeast of Christchurch. A large boat carrying fifty 4,000 watt bulbs, would put out between 4 and 5 million lumens, yielding a luminous intensity of 300,000 to 400,000 candlepower.

(Note: The pilot and co-pilot pointed out artificial sources including the squid fleet to the passengers. The fleet was also picked up by a scanning satellite at about 1:00 a.m. on Dec. 31. It was about 140 n.m. or about 260 km southeast of Christchurch. The Royal New Zealand Air Force reported its position as 260 km east of Christchurch during the evening of Jan. 2, according to newspaper reports.)

ANALYSIS OF THE WELLINGTON RADAR SIGHTINGS

Geoffrey Causer reported that the Wellington radar picked up anomalous targets more or less continually during the period that he was on duty from about 11:45 p.m., Dec 30, through about 4:00 a.m., Dec. 31. The previous controller had also seen the targets and had pointed them out to GC. The targets were unusual because they did not generally leave

trails on the radar scope, indicating to the controller that they were stationary. However, the MTI processing was supposed to reject stationary targets. Some targets would appear for only one sweep (in which case no motion could have been detected anyway; you need several sweeps for the motion of a target to leave a trail) and some targets would remain at fixed positions for many sweeps. One anomalous target that did move apparently paced the aircraft during the flight south when the aircraft target "doubled in size". One other anomalous target did make a consistent trail. This target was observed to move continuously northward from a point south of Cape Campbell to a point several miles northeast of CC during the period 0226 to 0300, when it disappeared off the scope. GC first reported it to the plane at 0246 as follows: "The most consistent and interesting target I've been observing for the last 20 minutes, uh, is about 10 miles south of Kames and slowly moving north. It's moved about 10 miles in that time." (Kames is a non-geographic reporting point about 4 miles east of Cape Campbell.) The average velocity suggested by these statements is 30 knots. GC referred to this consistent target again at about -256: "Target I mentioned before that was consistent and strong and moving north." During the time period 0246-0256 this target had moved about 10 miles, suggesting a velocity of 60 knots. A few minutes later it disappeared off the radar scope. The speed seems somewhat excessive for a fishing boat.

(The characteristics of the radar targets picked up during the early morning of Dec. 31 were similar to those reported during the early morning of Dec. 21. Senior Controller John Cordy and controller Andy Herd reported targets which appeared and disappeared off the coast near the mouth of the Clarence River. They also reported a target which appeared at about 0300 at 160° azimuth and about 48 km (26 nautical miles) from Wellington. It remained at that location for a period of time and then moved, leaving a continuous track, to a point 80 km away from Wellington on the same heading, where it remained for "at least 30 minutes". The average speed of the target when it moved was about 120 knots. These radar sightings form part of the collection of radar-visual sightings of Dec. 21.)

Stationary targets can be presented on an MTI processed radar scope display providing that they can, in some way, change the phase of the returned signal or shift its frequency slightly. Such a phase shift could be provided by a vibration of the surface of an object, or by a back and forth motion of an object toward and away from the radar antenna. A plasma might also shift the phase of a portion of the reflected radar signal (this assumes the object is a plasma or is surrounded by a plasma).

The "blips" (bright arc-shaped spots) on the radar scope that were made by the unusual targets were comparable in size and intensity to the blips made by the airplane, according to GC and Bryan Chalmers. However, BC determined that when the MTI processing was removed the targets were not seen. (The non-MTI display showed the normal amount of nearby land and sea clutter and the plane.) Targets could appear on the MTI display and not on the non-MTI display if they were basically weak targets (i.e., not very reflective for the 50 cm radar). This is because the MTI processing makes the radar receiver more sensitive (by integrating over pulses and more effectively separating the signal from the background noise). Even normally strong targets, such as aircraft, can be weak reflectors if the targets are oriented in such a manner as to present small "cross-sections" for radar reflection. For example a

plane travelling directly toward or away from a radar antenna has a smaller cross-section for radar reflection than a similar plane travelling at an angle of 90° to the line-of-sight to the radar antenna (i.e., "broadside" to the radar antenna). Thus the orientation in space is a major factor in determining the cross-section. An object which appears as a strong target (relatively large cross-section) on one sweep of a radar scope might turn between sweeps and become a weak target (relatively small cross-section) by the time of the next sweep. If the cross-section were to become too small the target would "disappear", as far as the radar operator is concerned.

Blips are produced on the radar scope whenever the radar antenna picks up sufficient power at the correct frequency. Except in the cases when external sources of radar frequency power irradiate the antenna (jamming, interference with other radars), power is received at the antenna only when there is a (or more than one) reflective object within the irradiating field of the transmitter. In other words, when there are no reflections of the radar beam there are no targets on the scope. Reflections can be provided by metallic objects (e.g., planes), conducting media (e.g., ionized air or plasmas, such as are created by lightning and meteors) and by discontinuities or variations in the dielectric constants of the media through which the radar signal passes. In the case of the anomalous targets referred to here, one proposed explanation is that the radar was picking up reflections from "dielectric discontinuities or variations" caused by clear air turbulence. However, "clear air turbulence" requires that the air be turbulent. According to the flight crew the air was quite calm. The captain estimated that the wind velocity was about 10-15 knots from the northwest when they were near Wellington and from the southwest when they were near Christchurch. He was able to operate the plane on "automatic height control", a device which keeps the plane at a level corresponding to a particular air pressure. (Since air pressure decreases with increasing altitude, a particular pressure corresponds to a certain altitude, or range of altitudes. When the air is turbulent the pressure fluctuates considerably and the automatic height control will not operate.) Regions of clear air turbulence have very small cross-sections for radar reflection, especially at rather long radar wavelengths like 50 cm. (clear air turbulence cross-sections may be one millionth of the cross-section of an Argosy aircraft, or even smaller).

An alternative to having the atmosphere itself reflect the radiation would be to assume that the atmosphere bends the radar beam so that it reflects off objects on the surface. Since the Wellington radar had no capability of determining the height of a target, the controller could not tell from the strength of the return whether he was looking at a boat, a wave, or an airplane. However, by comparing successive blips he could usually distinguish between slowly moving targets such as boats and waves and rapidly moving targets such as airplanes. (A slowly moving airborne object such as a helicopter could produce a blip that would be comparable to that of a boat.) When the atmosphere is sufficiently refractive to bend the radar beam downwards, an unusual amount of land and sea clutter is visible on a non-MTI display. As already pointed out, BC made such a check and determined that there

were no conditions indicative of "anomalous propagation" apparent on the non-MTI display. The lack of anomalous propagation effects on the scope is consistent with what would be expected from the temperature-humidity "structure of the atmosphere" as determined by data from a balloon launching earlier in the evening (see Table I and Fig.3). Refractive bending of the radar beam is caused by the variations in air pressure, temperature, and humidity with altitude. The amount of bending to be expected for a particular temperature-pressure-humidity "structure" of the atmosphere can be estimated by calculating the radar refractivity profile. Fig. 5 shows the profile calculated from data in Table I. Radar ray curvatures in seconds of arc per kilometer are also illustrated in the figure. Only for a small height region around 3400 meters was the refractivity sufficient to make a ray follow the curvature of the earth. Nowhere was the refractivity great enough to bend a ray as much as a minute of arc per kilometer of distance travelled. A ray which travels 10 km through a medium that bends it downward from a starting angle of 5° upward would be only about 30 meters lower in altitude if the bending rate is two minutes per kilometer than it would be if the bending rate were 0.0 minutes per kilometer (no bending). Thus one can see that the effect of the curvature is small. The same ray would rise to a peak altitude of about 6.5 km after travelling about 150 km (assuming the refractivity gradient is constant up to that altitude) and then it would bend downward and intersect the earth at a point about 300 km from where it started at the earth's surface. A ray that started off at a steeper angle would go farther before reaching the earth's surface, and one that starts off at an angle of less than 5° would not go as far.

(For comparison, Fig. 6 shows the refractivity profile for the early morning of the 21st of Dec. Note that there is a sufficient refractivity gradient in the first kilometer to cause some trapping of radiation near the earth's surface. One might expect a non-MTI display to show ground and sea clutter at greater distances than would be normal.)

One particular incident involving the Wellington radar occurred when the plane was about 84 n.m. (155 km) from Wellington and flying south (see #12,13,14,15 in the event description listing). The radar picked up a target that was apparently stationary behind the plane for over a minute. Then another (or the same?) target appeared at the right of the plane, and finally the return from the plane "doubled in size" suggesting that something was moving along with the plane. The two witnesses to the scope at this time described the motion of the large return blip along the scope as looking like two airplanes flying side by side. The question now to be raised is, can this be explained by anomalous propagation effects or radar "angels"? To answer this question one must keep in mind that the existence of a radar return requires that there be something reflective, and that the "radar path length" from the radar antenna to the object be the value given on the radar screen. Since this value was apparently the same as the path distance to the airplane for a period of over 36 seconds, this requirement means that the radar path length to the anomalous target must have increased at the same rate as the path length to the aircraft. The simple way for this to happen is to have a "real" reflective object which is moving away from the radar antenna at the same speed as the aircraft. It also has to be at the same azimuth as the aircraft,

although not necessarily at the same altitude. It should be obvious that no natural radar reflector could effectively pace the aircraft for such a long period. Another airplane could do it, but there were none. An alternative hypothesis is that the radar picked up a stationary target which was made to appear to move by effects of anomalous propagation. If the radar rays were bent down sufficiently so that they could pick up a boat or wave on the surface, the assumed boat or wave could be at the distance of the aircraft, but clearly neither a wave nor a boat could move at the same speed as the aircraft. Thus a "direct" radar path from the antenna to a boat (or some relatively stationary target) will not work. But what if the rays from the antenna first travelled upward and then were reflected downward, as if by an atmospheric mirror, and then the reflector started to move upward! In this case the radar path length would increase as the reflector moved upward while the reflective target remained relatively stationary compared to the speed of the plane. Fig. 7 illustrates the geometry. Initially one might assume a curved radar path such as the dashed line. However, such a trajectory has a curvature of about 17 minutes/km, which would require a refractivity gradient of about 5000 N/km, which is way out of the range of values on Fig. 5. The only possibility would be a very flat ray which has undergone little bending on its way to the hypothetical ship on the surface. (The curvature of the "flat" ray - solid line - has been exaggerated.) Assuming the reflecting or bending region moves upward, as indicated by the arrow, the path length from the antenna to the ship will increase at a rate approximately given by $(8h/X)$, where x is the straight line distance from the antenna to the ship and h is the maximum distance between the straight line and the curved path. Since x is large (84 n.m.) and h is small (initially zero), the path length increases very slowly as h increases. For example, let the straight line be 84 n.m. long, the approximate distance to the plane when the blip first increased in size. The blip size remained large for at least 36 seconds, which means that the plane travelled at least 2 miles. Thus the radar path length to the anomalous target (ship) must also have increased by 2 miles during the same time period. That means the solid arc line on Fig. 7 is 86 miles long. Using trigonometry and calculus one can show that the arc length (segment of a circle) of 86 n.m. and the chord length (straight line) of 84 n.m. have a maximum spacing (h) of about 8 n.m. or 48608 feet, a distance which would not even appear on the figure if it were drawn to scale! (The plane is only 14,000 feet high.) The reflective or bending region of the atmosphere would have to move upward 8 n.m. in the same time that the plane moved only 2 miles, or at a speed four times faster than the plane. Needless to say, volumes of air (which do the bending) that are moving at 4 x 215 knots would cause some turbulence since they would be moving faster than the speed of sound! One may conclude from this argument that motion of refracting layers cannot account for this incident.

One could make another suggestion: namely that the radar beam bounced off the airplane and hit a stationary target and then was reflected back to the antenna. However, unless the stationary target were within 1 mile of the airplane during the whole period, the extra distance travelled would show up on the scope as a bend in the unusually long return blip. A boat on the surface, properly oriented, might provide

a sufficient reflection but the plane was flying at an altitude of over 2 n.m., so the extra distance travelled by the twice reflected ray (one by the airplane and once by the boat) would show up on the scope.

There is still another alternative, illustrated in Fig. 8. In this case we assume that a bending layer develops at just the right time and place so that a few rays hit the surface of the ocean at a path distance equal to 84 nm. Then we assume that the bending decreases slightly in time so that the rays hit the surface at a greater distance. The decrease in bending has to occur at exactly the correct rate to make the path length increase by 2 nm in 36 seconds. It would not require much of a change in the amount of bending to accomplish this, although the average amount of bending would have to exceed the curvature of the earth since the horizon, for an antenna at 1700 feet, is at 47 nm (no bending; straight line distance).

The big problem with all of these explanations requiring ray bending is that, when conditions are correct so that "one" ray or "ray bundle" bends down and hits the ocean, or a ship on the ocean, many adjacent bundles also bend down. Thus one would expect not one but many apparently real targets at various azimuths and distances all moving at various apparent velocities as the conditions of the atmosphere change. Moreover, when the conditions of the atmosphere are such that noticeable ray bending is taking place and producing sea clutter, the random targets appear on a non-MTI presentation as well as on the MTI presentation. Yet BC saw no evidence of anomalous propagation. Thus it appears to be difficult to ascribe this particular radar incident to anomalous propagation. It is also difficult to ascribe the other "class" of unusual radar targets, those that remained stationary for long periods of time (minutes) to anomalous propagation since stationary targets produced by constant ray bending are, nevertheless, stationary, and therefore should not be able to defeat the MTI processing.

ANALYSIS OF RADAR-VISUAL SIGHTINGS

A radar-visual sighting occurs when a visual target (object) is seen in the same direction as a radar target. Unfortunately the radar target may not be the same thing as the visual object since the radar operator has no way of estimating altitude (when using a long range search radar, as in this case), and the visual observer usually has no way of estimating distance. However, if the visual and radar targets are observed to change in some way (e.g. move, "appear", or "disappear") at the same time, it is reasonable to assume that they are the same object providing that the nature of the change is the same for both types of observation. In this case we have three classes of observations: those in which radar and visual targets in the same direction with respect to the plane changed simultaneously (apparent radar-visual: ARV); those in which radar and visual targets were changing in similar ways but for which the exact directions of the visual targets are not known (maybe radar-visual: MRV); and those in which there appeared to be no synchronism (sic) between radar and visual targets (not radar-visual: NRV). Out of about 28 separable incidents involving the Wellington radar, 16 are NRV's, 8 are MRV's, and 4 are ARV's. The sighting as the plane

left Christchurch which involved the airplane radar for about 4 minutes continuously belongs to the ARV class. In this last sighting the object was picked up on radar as soon as the radar was warmed up and the sighting line to the object was in the same direction as the radar azimuth until the object was so far to the right of the plane that it went off the radar scope. The object was not detected on radar when the plane turned toward it, but at that time the depression angle (angle below horizontal) was quite large, so the object may have been below the radar beam.

The Wellington radar ARV's are described in the event description listing under #3, #10, #17, and #33. The MRV's are described in events #4, 5, 8, 16, 20, 34, 35, and 38 (see MUFON Journal, June 1979). ARV's will be discussed in detail.

Event #3 was the beginning of the whole series of occurrences. This is considered to be an ARV because the lights were seen in the same direction as the radar targets and because the "dynamic" characteristics of the lights matched those of the radar targets, namely, they would appear and disappear apparently at random. The visual estimate of distance (over the town of Kaidoura) must be considered to be erroneous for this to be an ARV sighting.

Event #10 is considered to be an ARV because of the apparently simultaneous appearance of a radar target and a light directly ahead of the plane. It is possible that the two targets that Fogarty referred to were sufficiently close together to look like a single target on the radar scope, or it may be that only one of them was sufficiently radar reflective to show up on the radar scope.

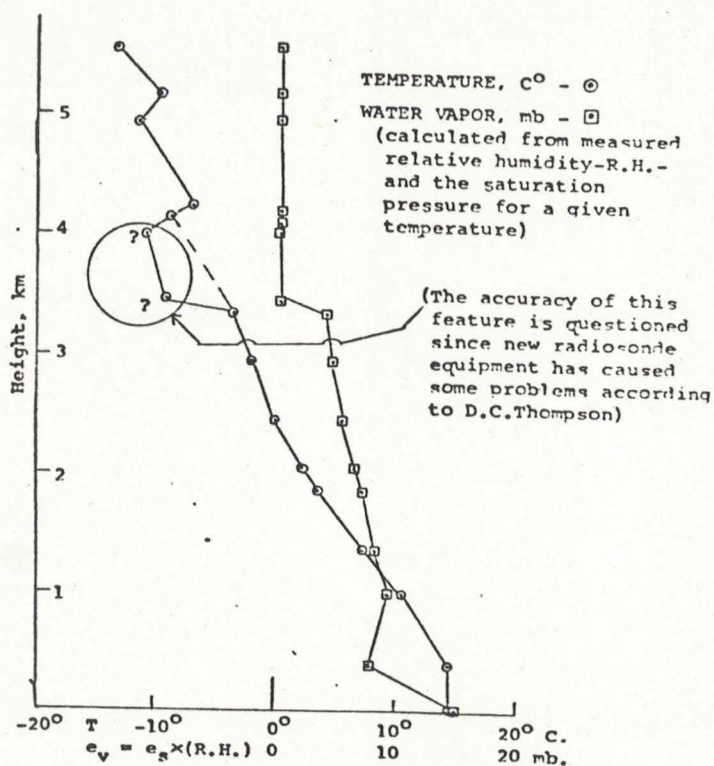
Event #17 followed the period of time when the radar target at the location of the plane was twice its normal size. In this case the observers looked to the right of the plane where Wellington said there was a target. They saw a flashing light which the copilot eventually lost sight of as it drifted behind the plane. Wellington saw a target which apparently remained stationary at the right of the plane as the plane moved along.

Event #33 was the beginning of the last series of sightings just before the plane landed. Both Wellington and the plane referred to the appearance of a target almost directly ahead of the plane. About a minute later this target disappeared both visually and on the radar scope. It is impossible to establish simultaneity of disappearance of the visual and radar targets at this late date, but the disappearances occurred within 5 or 10 seconds at least. The disappearance of the visual target may have been at the same time that the Blenheim beacon went off, but certainly the beacon was not the radar target. The object referred to here may have been one of the several targets picked up by the plane radar when it was heading toward Cape Campbell.

(To be continued.....)

FIGURE 3

TEMPERATURE AND HUMIDITY



VERTICAL STRUCTURE OF THE ATMOSPHERE FOR CHRISTCHURCH, N.Z. from the 11:00 P.M. balloon launching, Dec. 30, 1978. Data supplied by J.T. Steiner, Ass't. Dir. for Research and D.C. Thompson, Superintendent Physical Meteorology ; N.Z. Meteorological Service, Wellington, N.Z.

FIG. 4

SATELLITE PHOTOGRAPHY

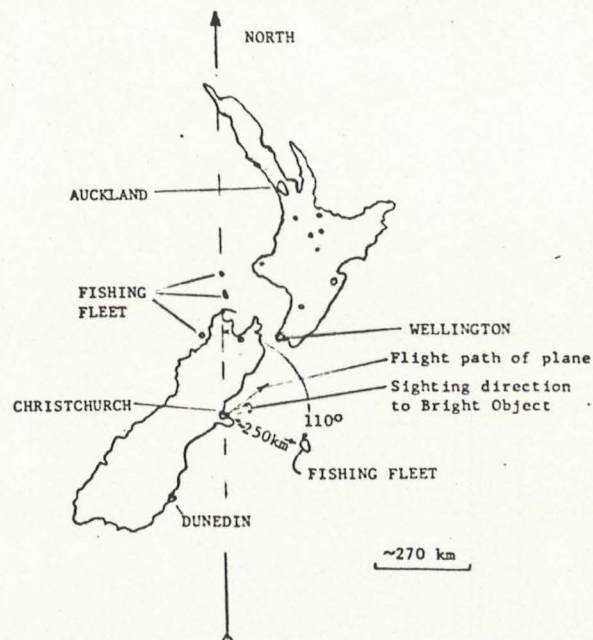
OVER NEW ZEALAND,

DEC. 30, 1978, 11:30 Z

(00:30 D.S.T., Dec. 31
in New Zealand)

Information from the Space Science and Engineering Center, University of Wisconsin, Madison, Wisconsin, U.S.A.; Defense Meteorology Satellite Imagery; DMSP Format "H"; Satellite F-1, orbit # 11908D, Dec. 30, 1978; obtained by R. Sheaffer

The map below is a tracing of the satellite daytime imagery (approximate tracing since clouds covered part of the land-sea boundary). Bright areas detected as nighttime imagery are indicated as small enclosed areas. Satellite photos for various nighttime orbits during the period Dec. 19, 1978 - Jan. 14, 1979 were available for comparison. These showed that the fishing fleet lights moved around, sometimes from night to night.



CALCULATION OF RADAR REFRACTIVITY FROM BALLOON ASCENSION DATA, DEC. 30, 1978, 11:00 P.M. LAUNCH

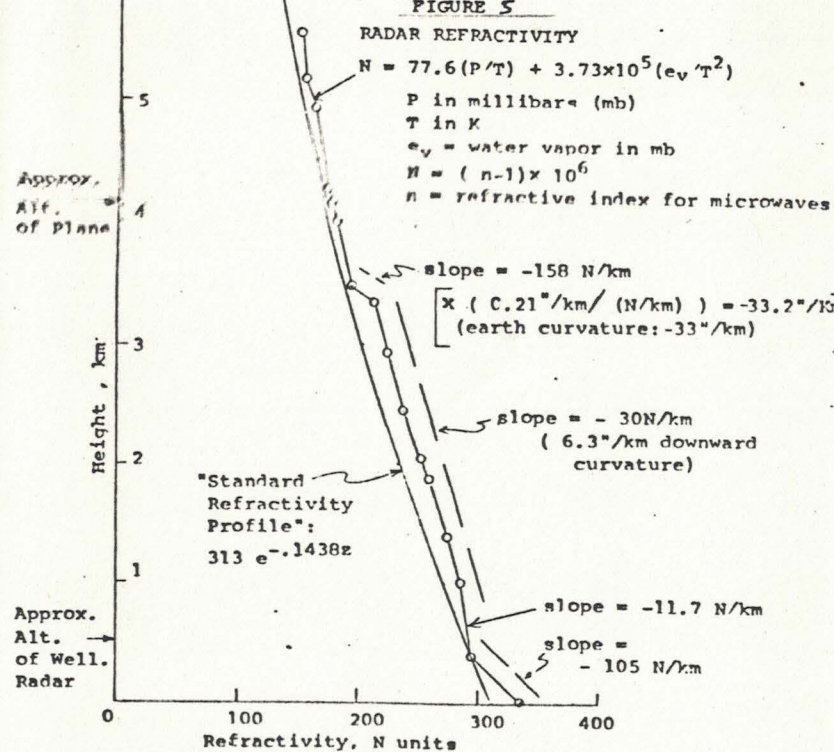
TABLE I

CHRISTCHURCH, NEW ZEALAND
(data supplied by J.T. Steiner)

Altitude (linear interpolation), meters	FROM BALLOON DATA		Relative Humidity R.H.	Saturation Vapor Pressure of Water, e_s , millibars	Absolute Humidity, e_v , mbar	$N = 77.6 \frac{P}{T_K} + 3.73 \times 10^5 \frac{e_v}{T_K^2}$
	Temperature, T , C° $= T_K - 273$	Pressure P , mbar				
0	14.5° C	998.6	89%	17 mb	15 mb	337 "N units"
400	14.5	958	47%	17	8	295
1000	10.5	894	78	12	9.4	288
1382	7.2	850	84	10	8.4	275
1880	3.6	800	92	7.7	7.1	259
2050	2.4	783	94	7	6.6	253
2480	0.0	743	93	6	5.6	239
2952	-2.0	700	94	5.2	4.9	225
3360	-3.5	668	94	4.5	4.3	214
3480	-9.0*or -4.0	659	10	2.8	0.3	195*or 192
4000	-10.9*or -5.5	614	10	2.2	0.26	183*or 179
4153	-8.5	600	10	3.2	0.32	178
4240	-6.8	591	10	3.5	0.35	174
4920	-11.4	544	10	2.5	0.25	163
5180	-9.8	528	10	2.8	0.28	157
5562	-13.2	500	12	2.0	0.28	151

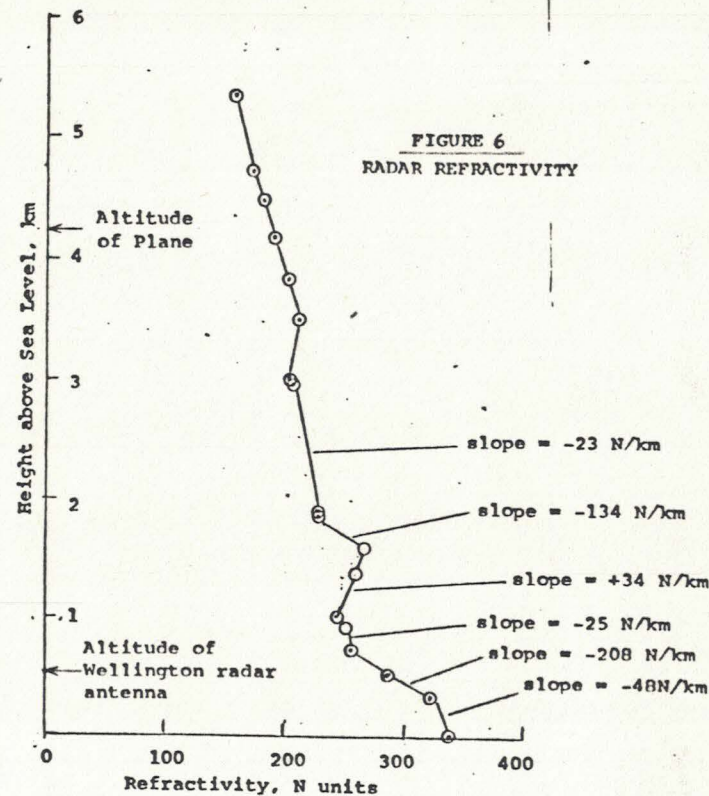
* According to D.C. Thompson these temperature values are suspect, perhaps indicating a temporary radiosonde sensor malfunction.

FIGURE 5



REFRACTIVITY PROFILE FOR CHRISTCHURCH, N.Z.

From the 11:00 P.M. balloon launching, Dec. 30, 1978.
Multiply by $0.21''/\text{km} / (N/\text{km})$ to get curvature in $''/\text{km}$. Curvature is downward if the sign is negative. The earth's curvature is $-33''/\text{km}$. Only at about 3400 m altitude was there a region with sufficient curvature to bend rays downward toward the earth at a bending rate equal to the earth's curvature.

FIGURE 6
RADAR REFRACTIVITY

REFRACTIVITY PROFILE FOR CHRISTCHURCH, N.Z.

From the 11:00 PM balloon launching, Dec. 20, 1978

FIGURE 7

APPARENT MOTION OF ANOMALOUS
TARGET CREATED BY UPWARD
MOVEMENT OF THE BENDING LAYER

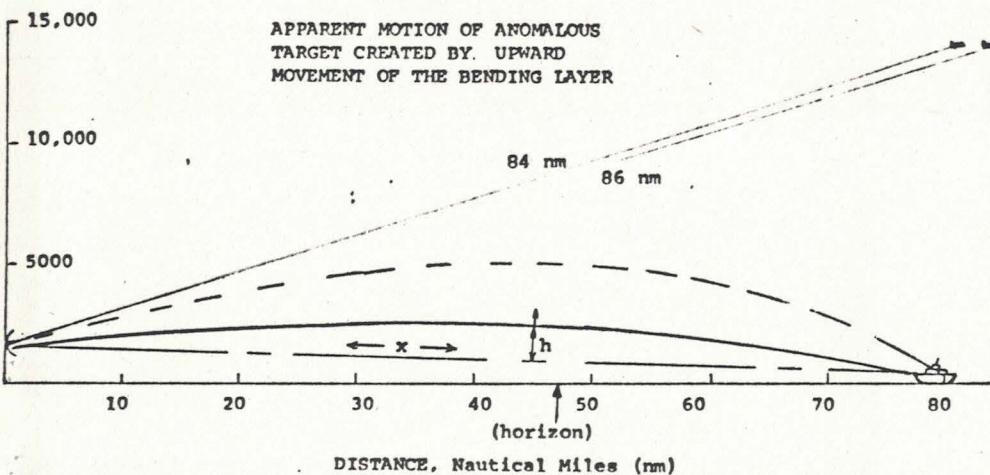
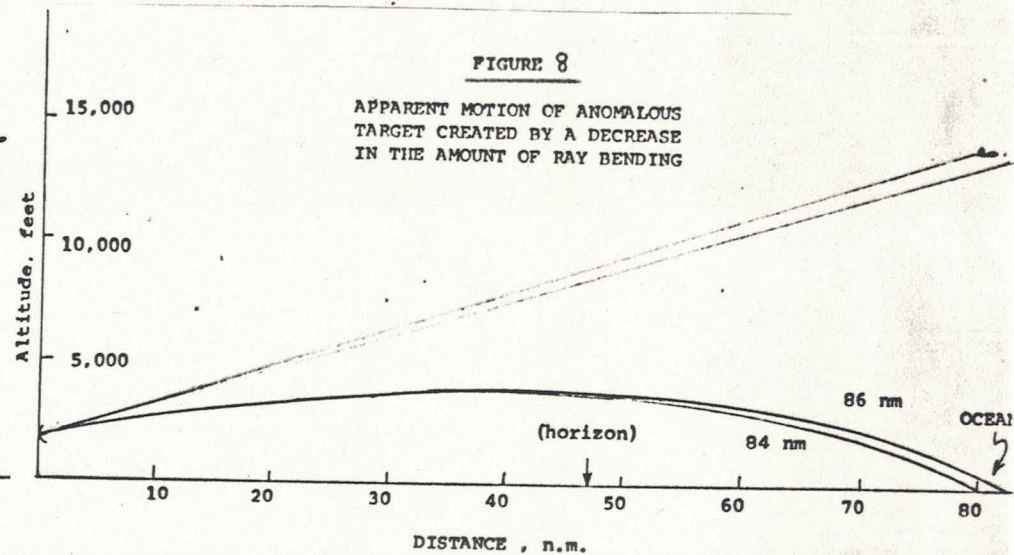


FIGURE 8

APPARENT MOTION OF ANOMALOUS
TARGET CREATED BY A DECREASE
IN THE AMOUNT OF RAY BENDING



GSW TO SPONSOR DR. HYNEK THIS FALL

GSW's James Spaulding has announced a new program for sponsoring a series of lectures in the Phoenix area which will feature some of the top names in the field of UFOlogy. The first lecture to be presented under this new program will be given by the renowned Dr. J. Allen Hynek, Director of the Evanston, Illinois-based UFO organization, The Center for UFO Studies(CUFOS), who will speak at the Del Webb Townhouse in Phoenix on Friday, October 19, 1979.

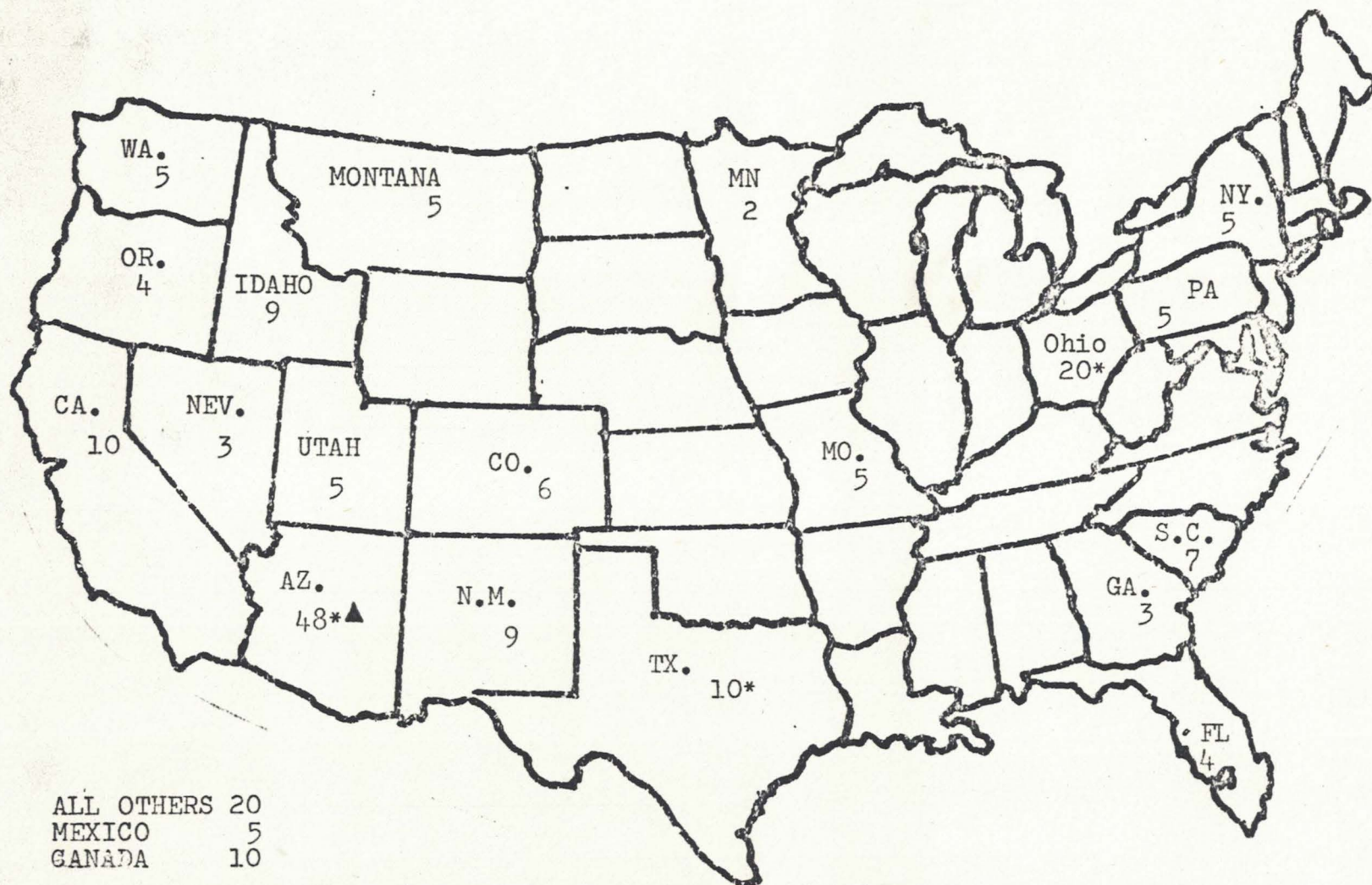
Dr. Hynek's credentials are impressive. He was the past civilian scientific consultant to the United States Air Force's UFO program - Project Blue Book, an astro-physicist at Northwestern University, and is currently the Director of CUFOS. Dr. Hynek's UFO involvement spans over 25 years and with all of his past experience in the UFO field, we are guaranteed an interesting and informative presentation.

The fact-filled lecture is expected to draw over 800 persons and will include an interesting visual presentation. Prior to Dr. Hynek's speech, William Spaulding, Director of GSW, will offer a brief update on the CIA lawsuit. Documents and other UFO-related material will be available to purchase at the lecture.

Anyone interested in attending this presentation should contact GSW immediately, as tickets are going fast. Prices are \$3.00 for adults and \$2.00 for students (including college). All checks should be made payable to GSW, Inc.

The program will begin promptly at 7:30 p.m.

* * * * *



MAP OF SIGHTINGS

Sightings logged in by GSW-East & West. All sightings do not constitute "real" UFO's .

1. 190 called-in reports of UFO's.

2. 45 Reports (hard copy) received.

3. Unknown rate (%) to date - Jan. 1979 through July 1979 9.52 percent (47 sightings)

4. AZ numbers do not include the Phoenix based advertisement airplanes.

These sightings cover the period of April 1979 through July 1979. (unknowns - 21 sightings)

*28 sightings attributed to various bright stars, the planet Venus and other celestial and conventional misinterpretations.

▲ Daylight disc photographed over Phoenix, Az.....Special report to be released soon.

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UFO LAWSUIT DOCUMENTS

Data Retrievals From the Government - Part II

By: James A. Spaulding, GSW/ED

With the concerted efforts of the requests for information using the FOIA format and the continuing action of the GSW lawsuit, numerous documents have surfaced, including some important statements on the UFO situation. To date, close to 2000 pages of material have been received. In each issue of the GSW News Bulletin we will present the "best" of the material from the various government agencies. In part two of this installment I will concentrate on the documents released by the CIA, which all of us at GSW/CAUS feel are an important part of the UFO story.

In a 1952 memorandum for the Deputy Director/Intelligence from the Assistant Director of Scientific Intelligence on the subject of recent sightings of unexplained objects, we see some early concern of the phenomenon: "In the past several years a number of radar and visual sightings of unidentified aerial objects have been reported. Although this office has maintained a continuing review of such reputed sightings during the past three years, a special study group has been started to review this subject to date. O/CI will participate in this study with O/SI and a report should be ready about 15 August. (July 29, 1952) (SECRET)"

"October 2, 1952

MEMORANDUM TO: Director of Central Intelligence
THROUGH: Deputy Director (Intelligence)
FROM: Assistant Director, Office of Scientific Intelligence
SUBJECT: Flying Saucers

ACTION RECOMMENDED - (a) That the Director of Central Intelligence advise the National Security Council of the implications of the "flying saucer" problem and request that research be initiated. TAB B is a draft memorandum to the NSC, for the DCI's signature. (b) That the DCI discuss this subject with the Psychological Strategy Board [PSE]. A memorandum to the Director, Psychological Strategy Board is attached for signature as TAB C. (c) That CIA, with the cooperation of PSB and other interested departments and agencies, develop and recommend for adoption by the NSC a policy of public information which will minimize concern and possible panic resulting from the numerous sightings of unidentified objects. [SECRET] H. MARSHALL CHADWELL"

"Sep 24 1952

MEMORANDUM FOR: Director of Central Intelligence
THROUGH: Deputy Director (Intelligence)
SUBJECT: Flying Saucers

2. It was found that the only unit of Government currently studying the problem is the Directorate of Intelligence, USAF, which has charged the Air Technical Intelligence Center (ATIC) with responsibility for investigating the reports of sightings. At ATIC there is a group of three officers and two secretaries to which come, through official channels, all reports of sightings. This group conducts

-21-

investigation of the reports, consulting as required with other Air Force and civilian technical personnel. A world-wide reporting system has been instituted and major Air Force Bases have been ordered to make interceptions of unidentified flying objects. The research is being conducted on a case basis and is designed to provide a satisfactory explanation of each individual sighting. ATIC has concluded an arrangement with Battelle Memorial Institute for the latter to establish a machine indexing system for official reports of sightings.

4. In its inquiry into this problem, a team from CIA's Office of Scientific Intelligence consulted with a representative of Air Force Special Studies Group; discussed the problem with those in charge of the Air Force Project at Wright-Patterson Air Force Base; reviewed a considerable volume of intelligence reports; checked the Soviet press and broadcast indices; and conferred with three CIA consultants, who have broad knowledge of the technical areas concerned.

5. It was found that the ATIC study is probably valid if the purpose is limited to a case-by-case explanation. However, that study does not solve the more fundamental aspects of the problem. These aspects are to determine definitely the nature of the various phenomena which are causing these sightings, and to discover means by which these causes, and their visual or electronic effects, may be identified immediately. The CIA consultants stated that these solutions would probably be found on the margins or just beyond the frontiers of our present knowledge in the fields of atmospheric, ionospheric, and extraterrestrial phenomena, with the added possibility that the present dispersal of nuclear waste products might also be a factor. They recommended that a study group be formed to perform three functions:

- a. analyze and systematize the factors which constitute the fundamental problem;
- b. determine the fields of fundamental science which must be investigated in order to reach an understanding of the phenomena involved; and
- c. make recommendations for the initiation of appropriate research.

- [6] b. Air Vulnerability - The United States Air Warning System will undoubtedly always depend upon a combination of radar screening and visual observation. The U.S.S.R. is credited with the present capability of delivering an air attack against the United States, yet at any given moment now, there may be current a dozen official unidentified sightings plus many unofficial ones. At any moment of attack, we are now in a position where we cannot, on an instant basis, distinguish hardware from phantom, and as tension mounts we will run the increasing risk of false alerts and the even greater danger of falsely identifying the real as phantom.

7. Both of these problems are primarily operational in nature but each contains readily apparent intelligence factors.

8. From an operational point of view, three actions are required:

- a. Immediate steps should be taken to improve identification of both visual and electronic phantom so that, in the event of

an attack, instant and positive identification of enemy planes or missiles can be made.

b. A study should be instituted to determine what, if any, utilization could be made of these phenomena by United States psychological warfare planners and what, if any, defenses should be planned in anticipation of Soviet attempts to utilize them.

c. In order to minimize risk of panic, a national policy should be established as to what should be told the public regarding the phenomena."

"DRAFT LETTER

MEMORANDUM FOR: Secretary of Defense
SUBJECT: Unidentified Flying Objects (Flying Saucers)

2. It is my view and that of the IAC that this situation has possible implications for our national security with respect to the vulnerability of the U.S. to air attack. Intelligence, however, cannot discharge its responsibilities with regard to estimating the capabilities of an enemy to create and use such phenomena against the U.S. unless we first determine through scientific research whether or not such phenomena can in fact be generated and controlled by humans.

3. It is therefore recommended, that the Department of Defense [SANITIZED] undertake an expanded scientific research program to reveal the nature of the various phenomena which are causing these sightings and means by which these phenomena may be identified immediately. It is also recommended that in such a project there be close cooperation between those conducting the research and scientific and technical intelligence research. The IAC agencies are prepared to do their part in such a project."

"13 October 1952

MEMORANDUM FOR: Deputy Director (Intelligence)
SUBJECT: Flying Saucers

1. Flying unidentified objects (Flying Saucers) have been the subject of Air Force observation and analysis because of the possibility that such objects might conceivably be an attack on the U.S. If they are not, it is conceivable that the enemy might take advantage of the confusion created by the Flying Saucers to use at his convenience some air weapon against the United States.

2. Thus far Defense Department conducted research in this area has been confined to the effort by A-2 through ATIC with the result that an explanation has been provided on all but 20 per cent of the total 1500 reported sightings of Flying Saucers.

3. Determination of the scientific capabilities of the USSR to create and control Flying Saucers as a weapon against the United States is a primary concern of the CIA/OSI. Its review of existing information does not lead to the conclusion that the saucers are USSR created or

controlled. It is the view of OSI that collection of intelligence information on the capabilities of the USSR to produce, launch, and control Flying Saucers and the analysis of such data as might be collected cannot be very effective until there is adequate fundamental scientific research launched to clarify the nature and causes of Flying Saucers and to devise means whereby they might be instantly identified.

5. Conclusions:

c. It is far too early in view of the present state of our knowledge regarding Flying Saucers for psychological warfare planners to start planning how the United States might use U.S. Flying Saucers against the enemy.

d. When intelligence has submitted the National Estimate on Flying Saucers there will be the time and basis for a public policy to reduce or restrain mass hysteria.

James Q. Reber
Assistant Director
Intelligence Coordination"

"Dec 2 1952

MEMORANDUM FOR: Director of Central Intelligence
THRU: Deputy Director for Intelligence
SUBJECT: Unidentified Flying Objects

4. Recent reports reaching CIA indicated that further action was desirable and another briefing by the cognizant A-2 and ATIC personnel was held on 25 November. At this time, the reports of incidents convince us that there is something going on that must have immediate attention. The details of some of these incidents have been discussed by AD/SI with DDCI. Sightings of unexplained objects at great altitudes and travelling at high speeds in the vicinity of major U.S. defense installations are of such nature that they are not attributable to natural phenomena or known types of aerial vehicles."(underlining by present author)

"6. Attached hereto is a draft memorandum to the NSC and a simple draft NSC Directive establishing this matter as a priority project throughout the intelligence and the defense research and development community.

H. MARSHALL CHADWELL
Assistant Director, Scientific Intelligence"

"MEMORANDUM TO: The Executive Secretary
National Security Council
SUBJECT: Unidentified Flying Objects (Flying Saucers)

1. The Central Intelligence Agency has reviewed the current situation concerning unidentified flying objects which have caused extensive speculation in the press and have been the subject of concern to Government organizations. The Air Force, within the limitations of manpower which could be devoted to the subject, has thus far carried the full responsibility for investigating and analyzing individual

reports of sightings. Since 1947, approximately 2000 official reports of sightings have been received and, of these, about 20% are as yet unexplained.

2. It is my view that this situation has possible implications for our national security which transcend the interests of a single service. A broader, coordinated effort should be initiated to develop a firm scientific understanding of the several phenomena which apparently are involved in these reports, and to assure ourselves that the incidents will not hamper our present efforts in the Cold War or confuse our early warning system in case of an attack.

3. I therefore recommend that this Agency and the agencies of the Department of Defense be directed to formulate and carry out a program of intelligence and research activities required to solve the problem of instant positive identification of unidentified flying objects. A draft of an appropriate directive is attached.

Walter B. Smith, Director"

"S-E-C-R-E-T

Security Information

IAC-M-90

4 December 1952

3. Action: The Director of Central Intelligence will:

a. Enlist the services of selected scientists to review and appraise the available evidence in the light of pertinent scientific theories.

b. Draft and circulate to the IAC a proposed NSCID, which would signify IAC concern in the subject and authorize coordination with appropriate non-IAC departments and agencies.

4. Discussion: The acting Chairman, Mr. Amory, presented to the committee the DCI's request that this subject be informally discussed. Dr. Chadwell briefly reviewed the evidence and peripheral considerations, and noted that most of the available evidence is processed by ATIC. General Samford offered his full cooperation. It was recognized that the problem is best approached if directly related to specific problems of intelligence and defense. It was thought desirable that the action noted above under 'a' be undertaken immediately, with consideration of a proposed NSCID to depend in some measure on the results achieved by the scientists' studies."

"Dec 10 1952

MEMORANDUM FOR:

THROUGH:

SUBJECT:

REFERENCE:

The Director of Central Intelligence

Deputy Director (Intelligence)

Unidentified Flying Objects

Request of the Director of 10 December 1952

1. The following is a summary of the current situation with respect to the investigation of unidentified flying objects. Recent incidents

include:

- a. Movies of ten (10) unidentified flying objects (unexplained on the basis of natural phenomena or known types of aircraft), near Tremonton, Utah, on 2 July 1952.
- b. A very brilliant unidentified light over the coast of Main for about four hours on the night of 10-11 October at a height computed to be two or three times that which can be sustained by any known device.
- c. Alleged contact with a device on the ground in Florida late this summer which left some presently unexplained after-effects.
- d. Numerous other sightings of lights or objects which either in configuration or performance do not resemble any known aerial vehicle or explainable natural phenomena. "

" May 27 1953 [After the Robertson Panel of Jan. 1953]

TO: Chief, Physics and Electronics Division/OSI
FROM: Assistant Director, Scientific Intelligence
SUBJECT: Unidentified Flying Objects

1. Responsibility for maintaining current knowledge of reports of sightings of unidentified flying objects is hereby assigned to your division. By carbon copy of this memorandum, Chief of the Applied Science Division is requested to provide support from a weapons and hardware standpoint."

"17 December 1953

MEMORANDUM TO: Assistant Director, Scientific Intelligence
FROM: Chief, Physics and Electronics Division, SI
SUBJECT: . Current Status of Unidentified Flying Objects
(UFOB) Project

3. Status of Department of Defense Activities

- a. Air Force. The Air Force continues to maintain, but with apparently decreasing emphasis, its interest in UFOB's. The present interest of the Directorate of Intelligence, Hq., USAF, is confined to a cursory cognizance of ATIC's project (Bluebook No. 10073). At ATIC the project is carried by one officer (Capt. Charles A. Hardin), one airman (A/1C Max G. Futch), and a secretary operating as the Aerial Phenomena Section of the Electronics Branch, Technical Analysis Division. In spite of this limited staff, as well as several changes of project officer, the project records appear to be up-to-date. ATIC personnel no longer conduct field investigations of UFOB sightings (these are requested from USAF intelligence officers [primarily Air Defense Command and Airways and Air Communications Service] nearer to the sightings), but confine their activities to receiving and checking reports as received, requesting additional field investigation where necessary, performing necessary checking against meteorological, astronomical, aircraft and balloon data, and recording their findings and conclusions

in a cross-referenced system by date, location, source, type of observation and conclusion drawn. The Aerial Phenomena Section also deals directly with the Public Information Office of Hq., USAF, regarding information for public release. For about the past year, approximately ten percent of the reported sightings have been tagged as unsolved.

Of particular interest is the fact that ATIC is in the process of transferring project Bluebook to Hq., Air Defense Command. According to Lt. Col. Harry Johnston, Chief, Electronics Branch, the reason for the transfer was that ADC had been doing most of the investigative work of the project and 'if it turns out that these things (UFOB's) are space ships or long range aircraft from another country, ADC is the (Air Force) Command that would have to take action.' Col. Johnston followed this comment with the somewhat contradictory statement that the project transfer did not reflect any change in Air Force policy. It is undoubtedly true that ADC is the Air Force Command primarily concerned with UFOB's at the present time in that their interceptors are occasionally dispatched 'against' reported UFOB's and that their reporting stations and communications systems are involved in a considerable portion of the UFOB activity. ATIC will maintain liaison with the project." (underlining by present author)

"Aug 8 1955

TO: Acting Assistant Director for Scientific Intelligence
FROM: Chief, Physics and Electronics Division, SI
SUBJECT: Responsibility for 'Unidentified Flying Objects' UFOBs)

REFERENCES: A. Memo to Ch/P&E from AD/SI, 27 May 53, 'Unidentified Flying Objects'
B. Memo to AD/SI from Ch/P&E, 3 July 53, 'Unidentified Flying Objects'
C. Memo for the Record signed by Ch/ASD, Ch/Ops, and Ch/P&E, 14 June 54, 'Intelligence Responsibilities for Non- Conventional Types of Air Vehicles'

1. By reference A, this Division was assigned 'responsibility for maintaining current knowledge of sightings of unidentified flying objects.'

2. By reference B, which received the concurrence of your office, this Division proposed to handle its responsibilities as follows:

- 'a. the project will be considered as inactive
- b. the incoming material will be reviewed periodically to segregate references to recognizable and explainable phenomena from those which come under the definition of 'unidentified flying objects'
- c. all material on unidentified objects will be deposited in the files for future reference unless it raises an immediately recognizable problem of concern to national security.'

6. In view of the fact that no positive intelligence of significance has been produced under the subject project, it is recommended that the

project be terminated and the files thereof be placed in dead storage.

TODOS M. ODARENKO"

"9 February 1956

MEMORANDUM FOR THE RECORD

SUBJECT: Responsibility for 'Unidentified Flying Objects'
REFERENCE: 1. AD/SI Memorandum for the Record, 9 January 1956,
'Office Responsibilities for Non-Conventional Types
of Air Vehicles'
2. Special Report #14, Analysis of Reports of
Unidentified Aerial Objects (Project Blue Book)
by ATIC, dated 5 May 1955

1. In accordance with Reference 1, this Division has assumed responsibility within OSI for Non-Conventional Types of Air Vehicles.
2. This Division proposes to handle this responsibility in the following manner:
 - a. Files will be maintained in ASD on incoming raw reports where, in our judgement, the subject matter may provide information bearing on foreign weapons' system research or development.
 - f. A file of finished intelligence reports published by members of the United States intelligence community on U.F.O. will be maintained in ASD."

"16 May 1958

MEMORANDUM FOR RECORD

SUBJECT: Meeting with Air Force Personnel Concerning Scientific
Advisory Panel Report on Unidentified Flying Objects,
dated 17 January 1953 (Secret)

1. A meeting was convened this date with representatives of the Air Force to discuss what steps should be taken concerning the subject report in order to take care of inquiries such as the letters written by Mr. Leon Davidson. Mr. Davidson has been most insistent upon getting the entire report released. The full report is classified 'Secret.' A declassified version is available, a copy of which was given to Mr. Davidson.
3. Paragraph 3 of the report cites examples of actions that could be taken by an enemy with possibly dangerous consequences to national security. This is the principal reason that the entire report cannot be declassified. This was agreed to in the meeting. In addition, it was pointed out by Mr. Strong that several of the panel members specifically requested that while they had no objection to their names being used in connection with the report, they did not want their names connected to the Central Intelligence Agency. So far it is believed that all connections between the panel members and CIA have been made by unofficial personnel.
4. In dealing specifically with Mr. Davidson it was agreed that Major Tacker would answer for the DCI at the same time that he was

answering for the Air Forces. (Mr. Davidson sent a copy of his letter to Major Tacker to the DCI for a response.)

5. Mr. Strong pointed out that perhaps the best way to forestall any future inquiries along these lines was to put out a press release covering the subject of unidentified flying objects, utilizing the panel report as much as possible. Major Boland agreed that this was perhaps the best way to handle it, inasmuch as in his capacity of Legislative Liaison, it would best satisfy congressional requirements. Major Tacker will draft an Air Force press release, clearing it through the various sections of the Air Force, and will then submit it to Mr. Cary for Agency review. Mr. Cary will consult with the Office of Security, Mr. Strong, and the undersigned when he receives the draft press release.

6. The Air Force representatives believe that much of the trouble they have been having with Major Keyhoe along these same lines could be alleviated if the Major did not have such important perquisites as Vice Admiral R.H. Hillenkoetter, USN (Ret.), former DCI, on the board of governors of his organization. They suggested that perhaps if the Admiral was shown the Secret panel report he would understand and take appropriate actions. Mr. Cary said that he would relate this suggestion to Mr. Houston (General Counsel).

7. Major Boland suggested that it might be advisable to contact the panel members to consider a rewording of the panel report somewhat along the lines that Dr. Menzel suggested in his letter to all the members of the panel. Dr. Menzel has received the unclassified version from Mr. Leon Davidson. Mr. Strong feels that this may be inadvisable at the present time, inasmuch as the report has already been made available to the public and any change may arouse suspicion. However, he will contact Dr. Robertson and discuss this.

W. E. LEXOW, Chief, Applied Science Division, SI"

(Author's note: We read some interesting contradictions in these documents and some obvious confusion within the components (departments) of the CIA. We will highlight these areas along with other documents in the next installment.)

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LAWSUIT DOCUMENTS SOON TO BE AVAILABLE FOR PURCHASE.....

Todd Zechel has reported to this office that he is in the process of culling the thousand-plus pages of CIA/lawsuit UFO documents. He is putting them into a readable format and is dividing them into small sections. The segments will be denoted A thru Z and will be ready for sale by August 1, 1979. GSW will publish the price list through the CAUS newsletter and by separate mailings. We hope all of our members will order some of the documents as the funds will help to defer some of the high legal costs of the lawsuit.

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SUGGESTED READING

For those UFO researchers who are seriously interested in keeping abreast of the latest developments in the field of UFOlogy, GSW recommends the following publications:

MUFON's UFO JOURNAL

MUFON, INC.

103 Oldtowne Rd

Sequin, Texas 78155

\$10.00 per yr. - Att: Walt Andrus

INTERNATIONAL UFO REPORTER

CUFOS, INC.

Evanston, IL 60202

\$12.00/yr.

Editor: Allan Hendry

JUST CAUSE

PO Box 9743

Arlington, VA 22204

\$10.00 per yr./ 12 issues

MUFON's Symposium Proceeding

Contact MUFON

Publications 1973 thru 1979 avail.

"Retrievals of the Third Kind"
(a case study of alledged UFO
occupants in military custody)
By Len Stringfield - write GSW
for details.

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The GSW news Bulletin is published three times annually...April, August & December. There are regular features such as an Editorial, "Directly Speaking" by William H. Spaulding, Director, Western Division, Organizational News, Calendar of Events, Map of Sightings As well as interesting articles & stories relating to various aspects of UFOlogy.

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